

Class ordinary Presentation document

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I - INTRODUCTION

It is very usual to make use of software for presentations during symposium, conference, project presentation, thesis defence or lecture. This type of software that uses slides often requires a big screen where projection can take place with of course some animations to make a transition between the various parts of a subject being presented: such a usage facilitates an understanding, legibility and notes taking for the listeners.

Until recently, the real problem confronting all users of presentation software was the amount of time they were compelled to devote to the making of slides. For the animation of a slide containing an ordinary text only required the creation of several text boxes, which means a lot of time.

The issue became more complex when it comes to designing slides containing:

- a scientific text with mathematical formulae, chemical formulae or macromolecules
- objects such as geometrical drawing, function, electronic and mechanical graphs.

Class is a new generation of presentation software which simplifies on the one part:

Concept, presentation and animation of slides of various types made up of ordinary texts, mathematical formulae, chemical structures and formulae, two dimension and three dimension graphical representation, geometrical drawings, usual arithmetic operations of primary and secondary standards, experimental tools in physics and chemistry etc...

And on the other part:

concept and animation of geometrical and dynamic constructions including all plane transformations (translation, rotation, symmetry, homothetic).

As we can note, Class has solved not only once and for all, problems linked with conception and animation of any presentation but also it constitutes an educational tool of inestimable value for scientific people at all levels including students.

There is however a need to mention some functions that make Class to be not only a revolutionary software but also unique in its kind!

- Writing of mathematical formulae takes place exactly as in ordinary text with an automatic passage to a new line.
- Chemical bonds are carried out with the same way we do when drawing with a pen
- The flexibility of the two dimensional and three dimensional coordinates systems simplifies graphical representation under all shapes wanted.
- Geometrical construction is carried out with an amazing simplicity due to the fact that necessary tools for conception are automatically available as soon as the corresponding elements of the plan are selected.

- A library for drawings is available to store drawings and images for a further use.
- The possibility of animating in an independent manner the selection of any part of the text (including mathematical or chemical formulae) not only simplifies the animation of the text under all shapes wanted, but also make it very flexible animation sequences.
- The possibility of writing or drawing in full screen mode facilitates corrections during presentation.
- The ability to animate geometry constructions and mathematical models, explore further and to probe deeper in order to find solutions to scientific questions using Class has widened considerably the field of its applications, making it an very powerful tool for teaching and learning at all educational levels.


Finally, we wish to draw the attention of the reader to the fact that the many functions mentioned above are made possible today thanks to a new theory on which the concept of Class is based: ***the non linear technique***¹ designed by Novoasoft.

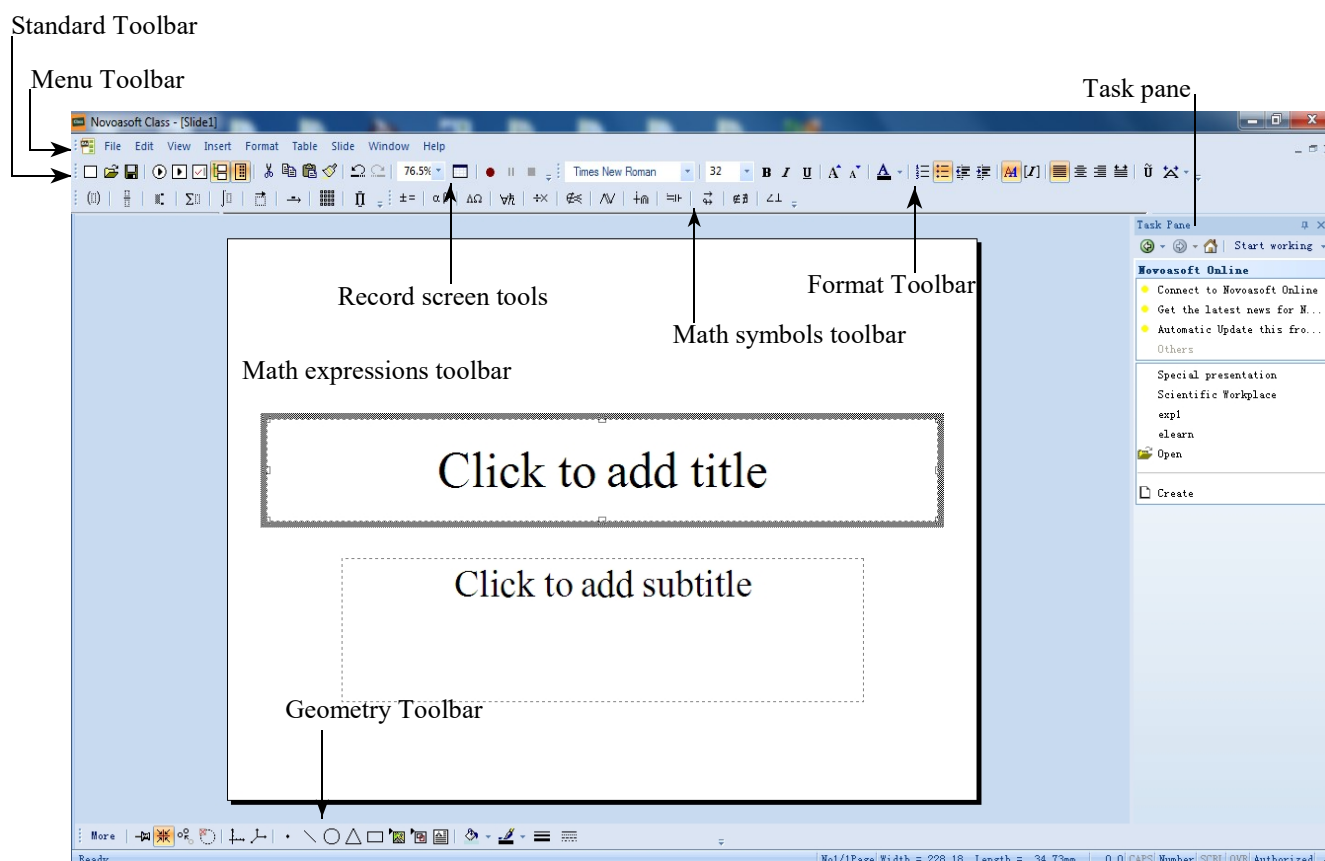
The linear or non linear nature of the document stands out from others through the structure of the basic elements of the said document. When there is a systematic structure between basic elements of a document, the latter is said to be of linear type. Moreover, in a document of linear type, there are only basic elements; there is no complex element. All traditional documents are of linear type. In contrast, non linear type documents are not only made up of basic elements but also complex elements.





Scientific and technical documents are complex documents made up of great number of formulae, curves, logical graphs, etc... These are true non linear type documents. Non linear technique makes processing of scientific and technical documents easy.



¹ This technique is explained in the foreword of ScienceWord user's handbook



II - Familiarisation with Class software interface

When Class is installed, the  icon appears in the desktop. By double clicking on the icon, the Class interface appears by default as shown by the image below:





The software interface is therefore a frame made up of a work page called slide (the white space) and a set of buttons underlying some programmes for execution of specific assignments; these buttons are categorized in distinct groups called toolbars. The two ends of the toolbars are either vertical image buttons  and  or horizontal image buttons  and .

Through the first  vertical end or  horizontal end, it is possible to capture the toolbars. You can then drag this toolbar to a new location of the interface reserved to toolbars or drop it on your work page for practical needs during processing of a document.

Through the second  vertical or  horizontal end you access several variable options (customising of tools display ...)

Due to practical reasons linked to reduced size of the screen of some computers, it is recommended to customize the display of a reduced number of really necessary tools.


To do this, click on  or  button then in the sub menu that opens, click on "Add or Remove"

thereafter in the list of tools that appears tick only elements, which display is necessary for your works

II - Essential elements to create a Class document

1) Insertion of a slide

To insert a new slide, click on “New Slide” in the “Insert menu” or click on miniature image of a work page in the slide navigator then press “Enter” key. A Class document is therefore made of several slides.

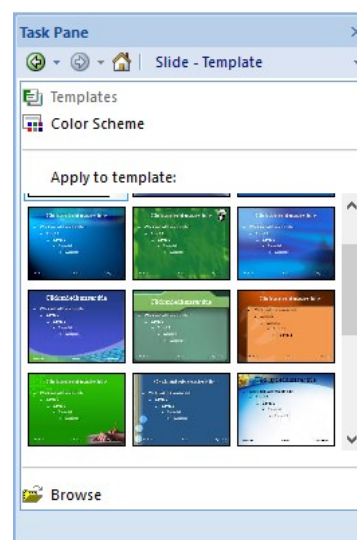
To create a new Class document, click on  button in the “Standard Toolbar” or use “Ctrl + N” shortcut.



2) Designing of slides

This simply is a choice of a background of slides for an attractive presentation.

- The choice can be made directly from among existing models. In this case, click on “Slides Design” in the “Slide” menu. The Task Pane (at your right) displays models as shown next. To select a model, click on it.
- Background can be customized. To do so, right click the mouse when the pointer is on the work page; then in the contextual menu that appears click on “Background”. The dialog box that opens below offers several options of modification of the background.



3) Slides Layout

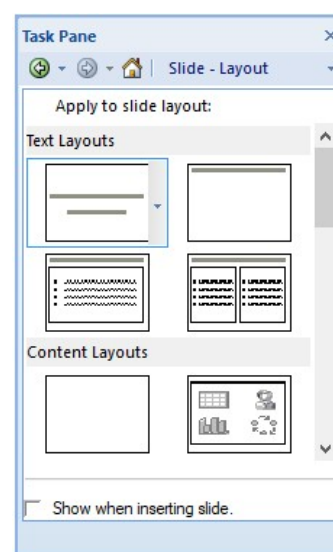
Slides are made of texts, drawings, images, library objects, tables, The editing of a slide consists in usage of pre-conceived models with specific zones **Click to add text** to accommodate text or

to accomodate table, pictures or objects of Graphics library



. To access these models, click on “Slide” menu on “Slide Layout” . Models appear in the Task pane as next. To use a model, click on it.

You may wish to suppress the displayed model on the page work



when carrying out a drawing for example or for other practical reasons. In this case, select one (or specific zones) to be suppressed and press the suppression button on the keyboard.

4) Animation of elements of a slide

Animation plays not only an attractive role in the presentation but also creates a pleasant and dynamic environment. We can distinguish two types of animation: *animation by effects* applicable to objects and texts, and *transition* applicable to a slide and geometrical animation using animation buttons.

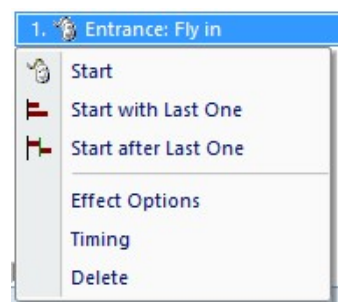
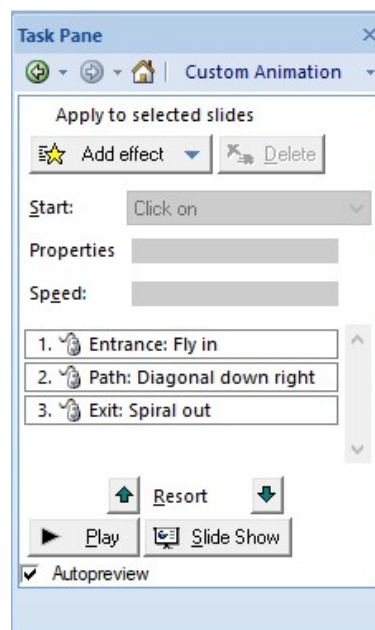
a.) Animation by effects

To realize such animation, click on “Custom Animation” in the “Slide” menu. Then the task pane appears as shown next.

In Class, you can apply independently the animation effects to a text zone or any selection of a part of text of this text zone (including mathematical formulae) and to any object (image, drawing, table, experience tool, macromolecule ...)

To carry out such an animation, select the object to be animated, then click on “Add effect” from the list of effects that appears, select an effect. The animation is immediately effected and the name and order of the effect appear automatically in the task pane (see image).

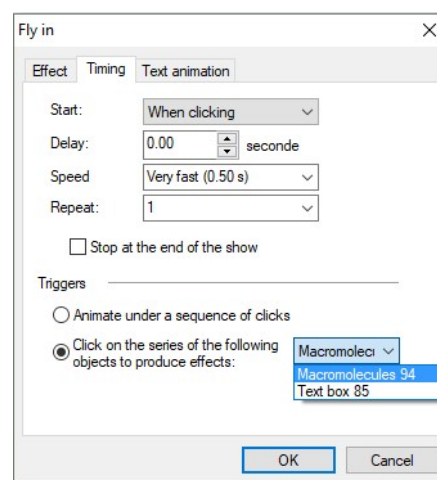
To add other effects (sound, colour etc.) to the animation, right click on the effect name then in the contextual menu that appears, click on “Effects Options” . You can now customize effect in the dialog that appears.



b.) Use of Trigger in animation

You can link an animation to a series of clicks on objects (images, geometrical objects, chemical structures, experiments graphs, etc...) or at once through a single click on an object .

To do so, just right click on the effect name and click on Timing to access Trigger. Then check the option "click on the following objects to produce effect" and select the object you have to click on to produce animation. This option helps to produce all the associated animations effects to the selected object at once. But the first option "Animate under a sequence of clicks" helps to get a well ordered animation through a series of clicks.



c.) Transition

To carry out a transition on a slide, click on “Transition” in the “Slide” menu. Then the task pane appears as on the right.

You can as is the case of animation by effects, add sound effects colors, etc ... You can also program the activation of the sequences of scrolling of pages in Slide Show mode.

5) Working pages

There are three types of working pages: **Normal slide, Note slide and Teaching slide.**

The "Normal slide" is the one that appears by default during opening of a new document.



To access the "Note side", click on “Notes page” in the “View” menu. Select the larger text zone, set the right font size and write. To come back to the normal display page, click on “Normal” in “View” menu.

In Class you can work in full screen designated as "Teaching" display page. To get the full screen, press **F11**; to exit full screen press again on **F11** or **Esc** key.

6) Scrolling of slides

Slides can be scrolled in two ways:

- By pressing on “Next page” on the keyboard for ordinary scrolling of pages
- By slides show through clicking or automatically.

To display the slide show from the first slide, click on  button in the standard toolbar or press F5 key. To display slide show from current slide, click on  button or use shortcut "Shift+F5".

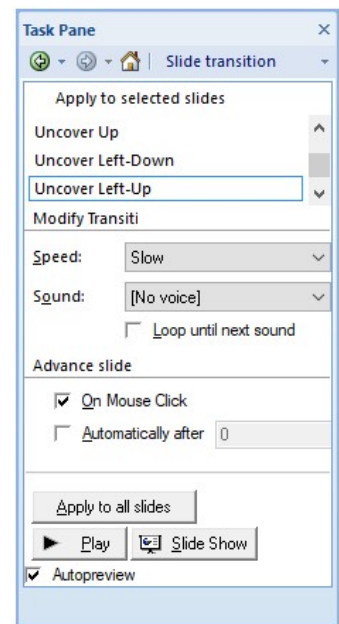
7) Inserting Multimedia and Macromedia

You can insert multimedia (Gif, sound or video files) and macromedia (flash files) from Insert menu and get them played in Show.

When multimedia and macromedia are inserted into Class file, they are definitely part of that Class file. These multimedia and macromedia will be played directly in that Class file on any computer where Class is installed even if any media player has not been installed on that computer.

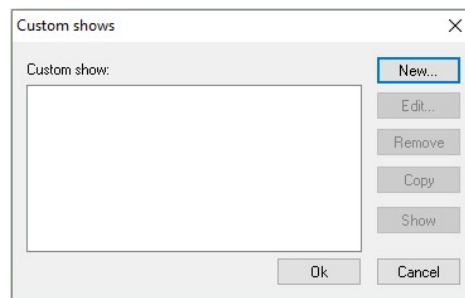
You can export back an inserted multimedia or macromedia object to its original file type.

You can save a combine Gif object and geometrical object as graphic's library object and get this library object animated in show mode.

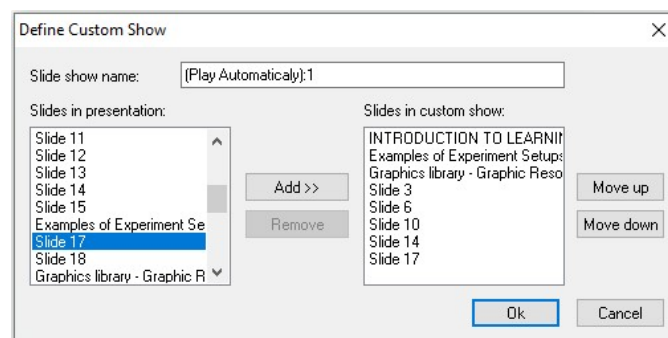


8) Custom shows

It is possible to view through slide show any part of the entire slides by proceeding as follow.
Click on “Custom shows” from “Slide” menu to get the following dialog box.



Click on “New” in the dialog box to get the following dialog box

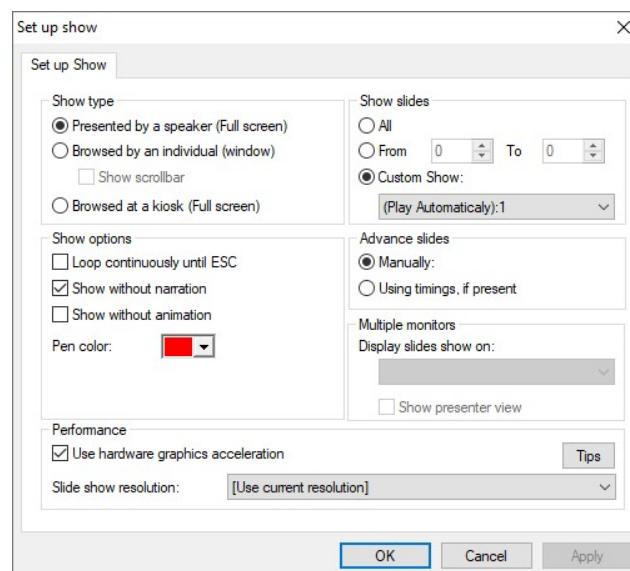


Through the help of "Add" button, customize the slide show then click on “Ok” to validate.



To customize other slide shows, follow the same process. Each time you access your document, you can unroll customized slide show by proceeding as follow:

Click on “Set up show” in the “Slide” menu. The following dialog box appears.

Tick “Custom show” case, display thereafter through the scroll button the customized slide shows, and then select a slide show as shown in the image below.

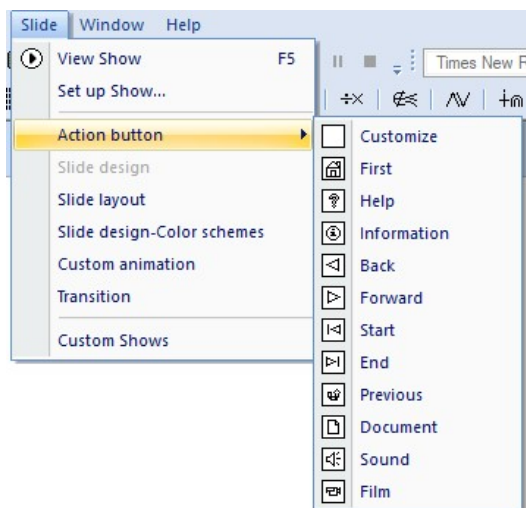


Validate your choice.

The button  of the standard toolbar (or F5) key helps to run the whole customized slide show as selected, while the button  (or Shift+F5) helps to run the show from the current slide.

9) Add action button to a slide

To add a button action to a slide which effect can be seen only in "Slide Show", click in "Slide" menu on action "button"; then select an action from the list of action buttons as shown below



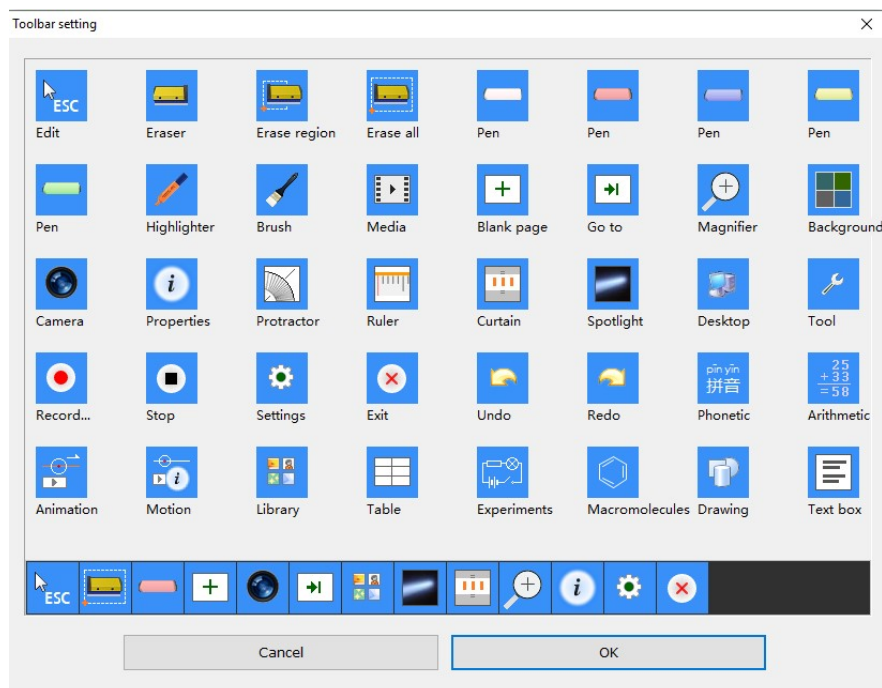
10) The interactive whiteboard tool

You can edit in full screen or teaching mode with the possibility of using whiteboard toolbar from your computer or from a white board. The toolbar as default is shown below



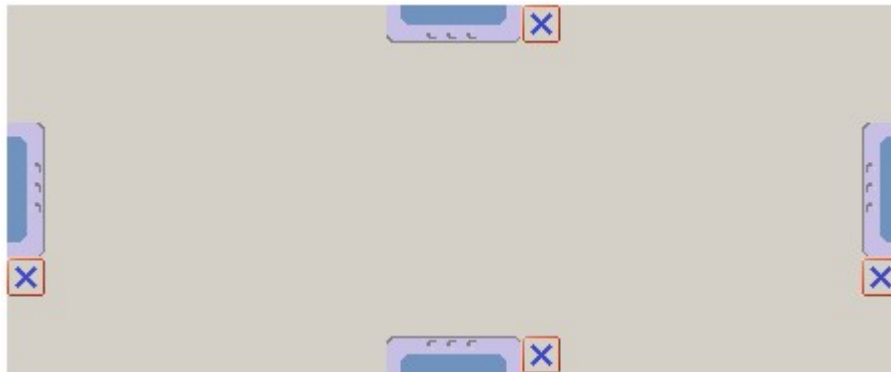
Setting button

Upon clicking on the setting you can access to the full options shown below



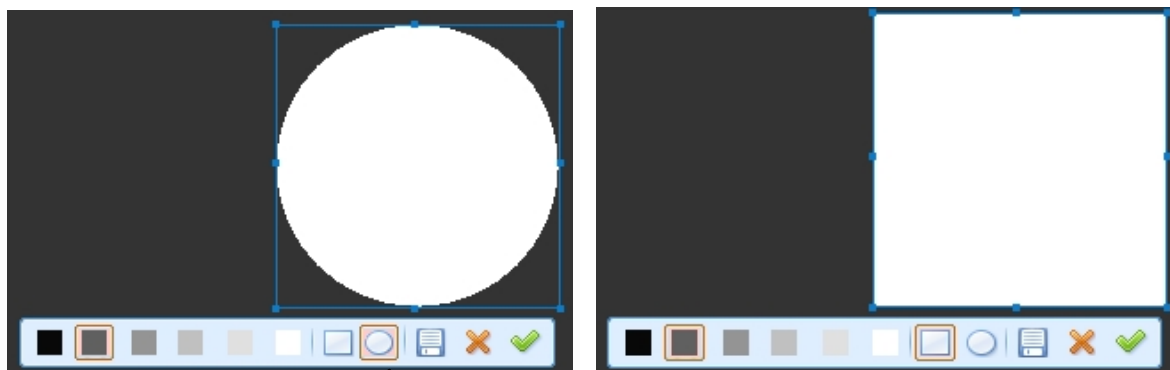
To add any button to the toolbar, just drag it into the toolbar and click OK. To remove any button from the toolbar, just drag it out of the toolbar.

When you click on Curtain option, a curtain as shown as follow, covers automatically the screen



You can open it from the left, the right, the top or the bottom.

When you click on the option Spot light , you get the following that helps to save as image, any part of the screen with a good resolution and a small size..



Elliptical region option

Rectangular region option

You can shift it, enlarge or reduce it from the left or right corners.



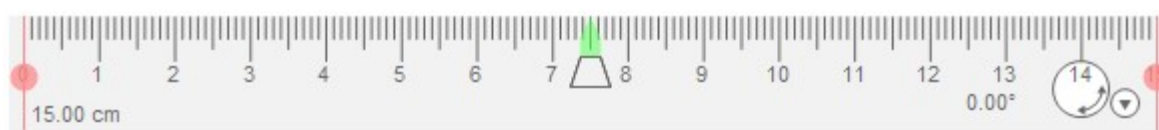
Buttons to reduce or increase the darkness

Save button

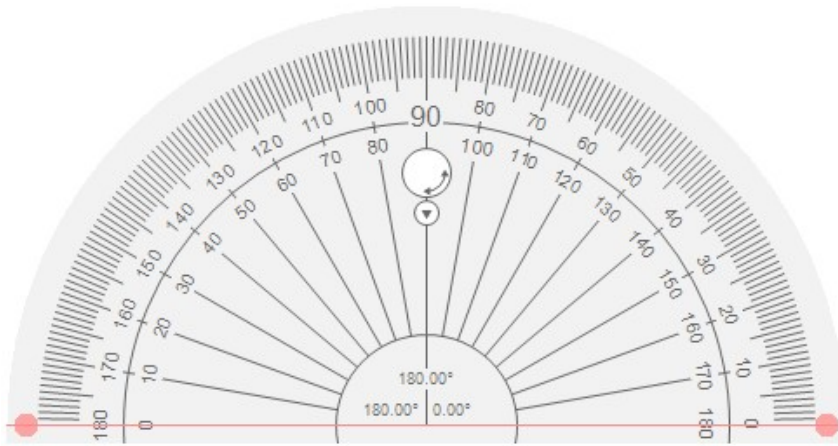
Close toolbar button

Hide toolbar button/ Right click mouse to display back

The ruler of the whiteboard shown below helps to draw a straight line or an circle arc with measurements (length and arc measures)

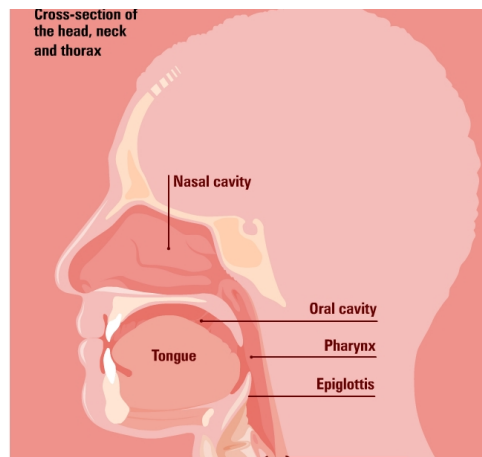
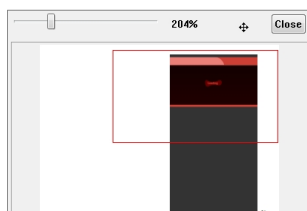


The protractor helps in taking measurements of angles



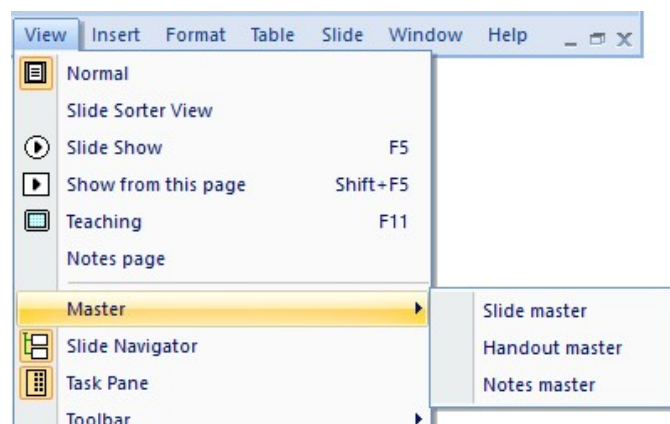
The magnifier button produces a magnification controller that can highlight any part of the screen.

Controller of magnification



11) Customizing of slides

You can customize your normal display page or Note page from the “Master” sub-menu of “View” menu.



- The "Slide master" is the model of the normal display page.
- The "Handout master" is the model of the Header and footer

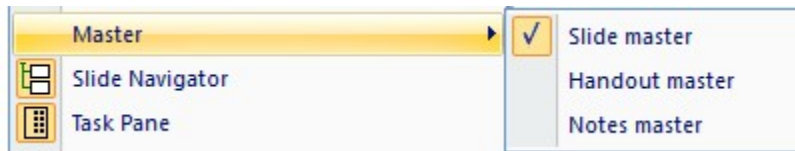
- The "Notes master" is the model of the notes page

Any modification on a master leads therefore to the same modification on the new slide created from the "Insert" menu or the "Enter" key of the keyboard.

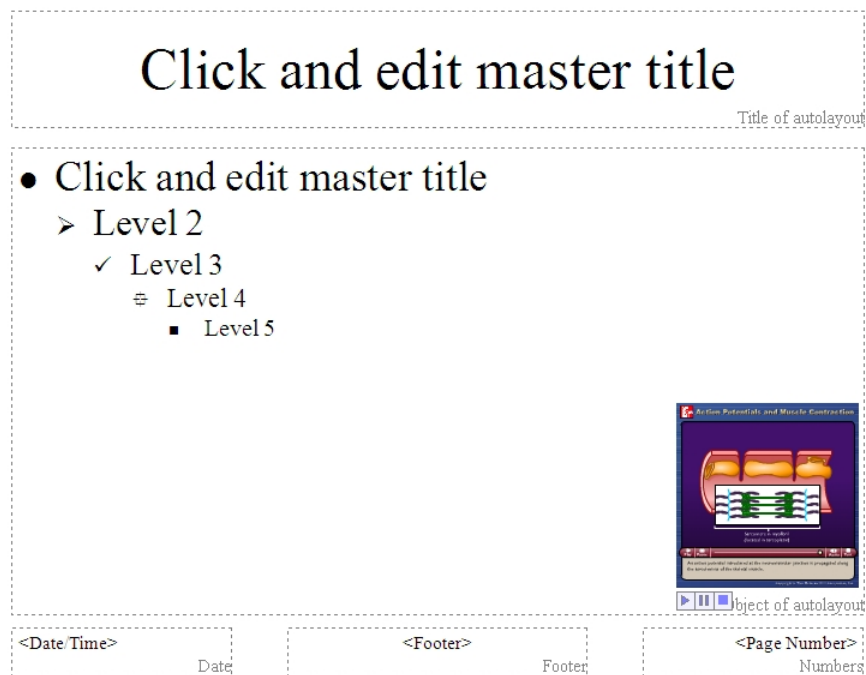
12) Add a new template

You can add a new template with sound, video, flash or geometrical construction animation. The steps are as follow:

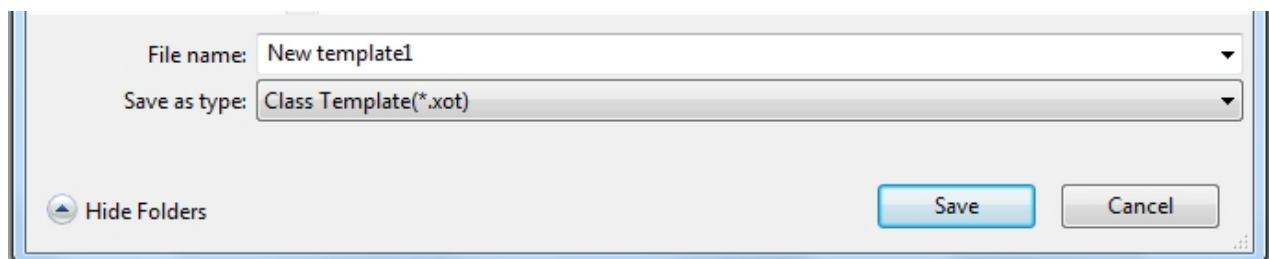
Click from the View menu on Master and then on "Slide master" as the illustration shows below.



Then custom settings (text level color, slide background, insert multimedia or macromedia, drawings and animation, etc).



Then save it as for exemple "New template1.xot" as shown below. in the **Template folder of Class in programme files**: *The path is as follows:..Disc C →Programme file → Novoasoft Learning folder → Version 6.5 folder → Template folder.*




Then close Class file and open it again, then select Slide-Template from Task Pane. At the bottom

of list of templates, you will get the new template1.



13 Recording the screen

You can record thanks to the Multimedia record buttons  any Class presentation including all actions taking on the screen as video (avi.) file,

You can even use the third screen recording option to generate HTML file with animation and sounds..

III- Creation of a simple document






1) Scientific text

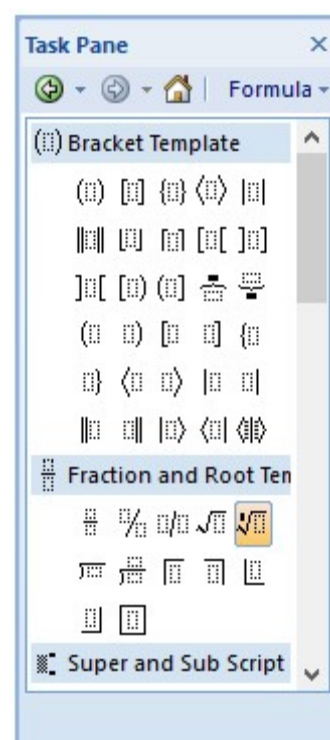
We define scientific text as a combination of an ordinary text (for a simple correspondence), of mathematical expression such as x^2 , \sqrt{x} , etc., mathematical symbols such as ∇ , ∂ , \neq , \cong , \mathbb{Z} , \odot , \perp , \geq , etc, simple chemical expressions such as $\text{NaOH} + \text{HCl} \longrightarrow \text{NaCl} + \text{H}_2\text{O}$, $2\text{H}_2\text{O}_2 \xrightarrow[\star]{\text{FeCl}_3} 2\text{H}_2\text{O} + \text{O}_2\uparrow$, etc.

Processing of mathematical and chemical expressions generally appeals to mathematical models by clicking on “Expression” sub-menu of the task pane.

You obtain a user friendly display of all these models as shown in the image at the opposite.

You can also make use of a shortcut key to display a mathematical model. For example, the insertion of a root square is directly obtained by holding “Ctrl” down and by pressing “R” key (a type of operation noted “Ctrl + R”). You can access the list of shortcut keys of current expressions through “Insertion” menu, as they appear as below.

	Superscript	Ctrl+W
	Subscript	Ctrl+M
	Sub and Super Script	Ctrl+K
	Square Root	Ctrl+R
	The Root of n	Ctrl+T






The insertion of formulae, symbols and various expressions can be also done in Class through an operator guide. There are in all six operator guides as shown in the following table:

Operator Guides	Functions
\	Insertion of mathematical formulae and symbols
`	Insertion of English words
~	Insertion of English words, phonetics and Chinese translation
!	Insertion of International Phonetic Alphabet (IPA)
@	Insertion of Chinese Phonetic Alphabet

You can get more details from the volume on Mathematic formulae in ScienceWord and Class

2) Automatic formatting of mathematical expressions

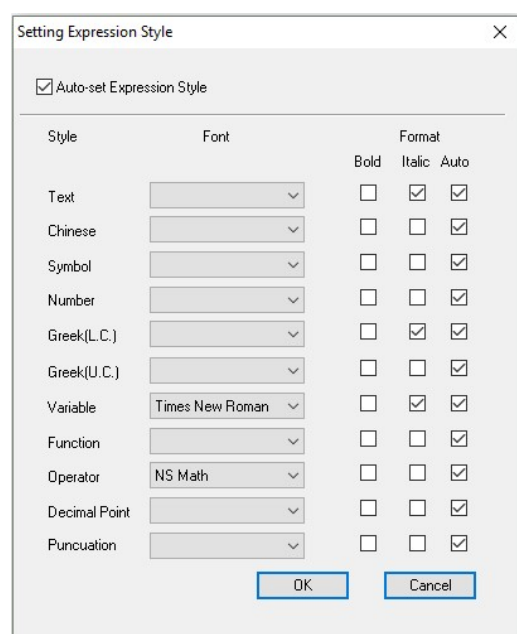
The scientific text in Class can be a combination of expression in mathematical mode and in ordinary text. The writing of scientific text is simplified when the ordinary text and the text in mathematical mode have the same automatic formatting. This is possible when “Intelligent Adjust ” tool is activated in the "Format Toolbar" . To activate or deactivate “Intelligent Adjust ” tool, click on  or use “Ctrl + Shift + I” shortcut key.

Practical application

Activate “Intelligent Adjust ” tool, then write the following expression:

$$f(x) = x \cos(x) + 2 \sin(x) - \frac{\sin(x)}{\cos(x) + 2}$$

To understand better, please click on “Format” menu, then in the menu that appears, click on “**Expression style**”. The following dialog box appears.



Text refers to the following characters: &, ", ', \$, £, ù, @, \, ~, ^

Symbol refers to the mathematical symbols: $\geq, \leq, \neq, \cong, \leq \dots$

Number refers to the numbers 0, 1, 2, 3, 9...

Greek refers to greek letter.

Variable refers generally to letters of alphabet.

Function relates to simplified mathematical functions such as sin, cos, tan etc., which refer respectively to sinus, cosines, tangent, etc. functions

Operator refers to the mathematical symbols: $\pm, +, -, \times, \exists, \forall, \in, \notin, \cup, \otimes \dots$

Decimal point refers to the point (.)

Punctuation refers to the characters: ,, ;, :, !,) and (.

3) Simple forms of chemical equation

Simple equation forms are those that we can express through the aid of mathematical models.

Letters that appear in such equations are straight (not in Italic) for example: $2\text{H}^- + 2\text{e}^- = \text{H}_2\uparrow$

We therefore recommend that, while typing chemical equation, the “Italic” case of the variable in the expression style dialog box be deactivated.

Activate thereafter “**Intelligent Adjust**” tool.

In the text zone “**Click to add title**”, click and write: **Introduction to chemistry**. Then, select the text zone “**Click to add sub-title**” and remove it.

Click to add a title

Click to add a sub-title

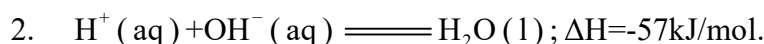
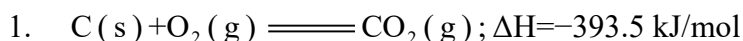
Insert a new slide (See lesson 2). You obtain a page like the image above

1. Click to add a text

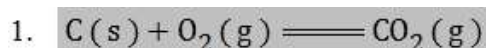
In the text zone “**Click to add a title**”, click and write: **Simple chemical equations**

Generally, it is convenient to write the expression of a chemical reaction when “Intelligent Adjust” button is activated and the “Italic” case of variable is deactivated in the Expression style dialog box.

In the text zone “Click to add a text”, click and write the following equations:



Select the first equation and add an animation effect (for example, "Fly in" effect see 4.a). This equation appears in grey selected as shown in the following illustration.



Apply thereafter another effect to “ $\Delta H = -393.5 \text{ kJ/mol}$ ” expression.

Do the same thing for the second equation.

Animate finally your document using the Slide Show.

4) Major type of page designs

We have two major types of slide page design:


- Customizing through a choice of the proposed slides designs.
- Customizing of a blank slide obtained through removal of text zones which appear by default. This choice comes very often when we want to carry out a geometrical drawing, a graphical representation, macromolecular, experimental tools, etc.

Let's note that any object found in a zone demarcated by the pointer of the mouse is automatically selected. The method of selecting with the pointer of the mouse is therefore very efficient to select several objects.

IV - Conversions

1- Converting a Class document into PDF Format (direct conversion)

Click on "Export to PDF" in the File menu. You may then name the file or choose a location (Desktop, My Documents etc) within the dialogue box that opens up.

At the end of the conversion, you will find your PDF file with the following icon  in the location chosen.

2- Converting a Class document into ps and eps formats

a) Installing a Virtual Printer *Apple Color LW 12/660 PS*

When a printer has already been installed on your computer, you can click on "Print Preview" in "File" menu in order to view your document before printing.

If no printer has been installed on your computer, you may click on the icon "Print Preview". In this case, a message appears asking if you want to install a printer (and this is the condition required for inspecting your document) . If yes, click on "OK". Thus, all the operating system's windows have a virtual printer that you can install. Upon clicking on "OK", a dialogue box opens

to assist you.

This installation is not only useful when a printer has not been installed but also for conversions into PS and EPS file. The following steps will help you to install it.

i) Click on "**Start**", then on "**Printer and Faxes**".

ii) In the window "**Printers and Faxes**", click on "**Add a printer**". Then the window "Add Printer Wizard" appears as shown below:



iii) Click on "**Next**". The window shown below appears



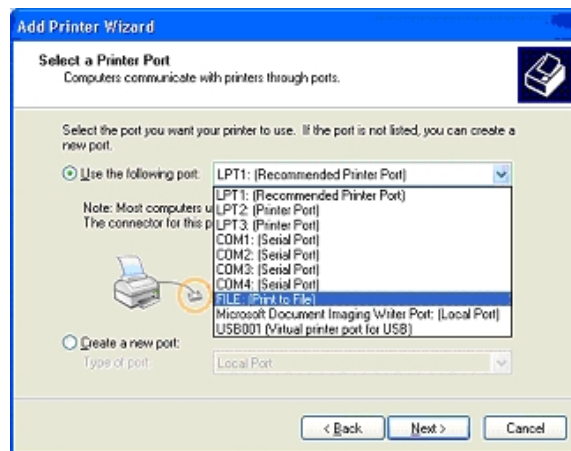
iv) - Choose the "**Local Printer attached to this computer**" option.

- Untick the "**Automatically Detect and Install my Plug-and-Play Printer**" option.

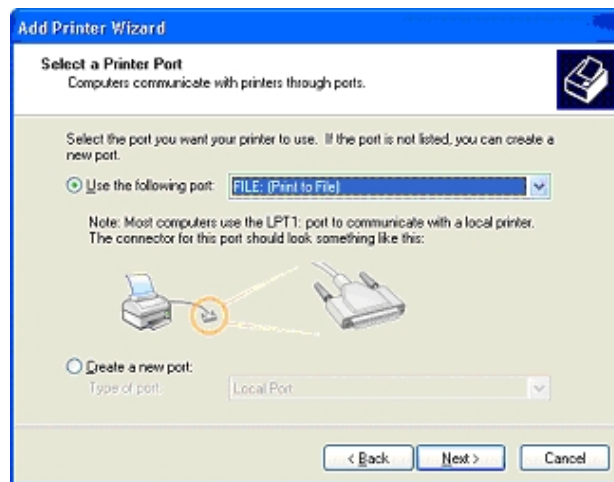
- Click on "**Next**"; the window shown below appears



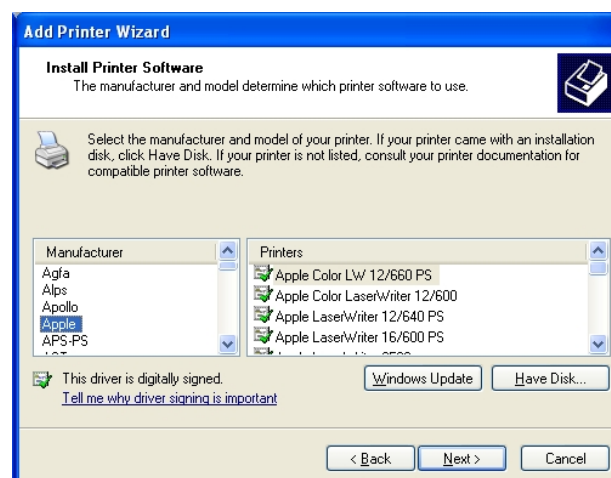
v) In the "Use the following port" window, click on the drop down arrow to display the window as below:



vi) Select (click on) "FILE: (Print to File)". The window appears as below:



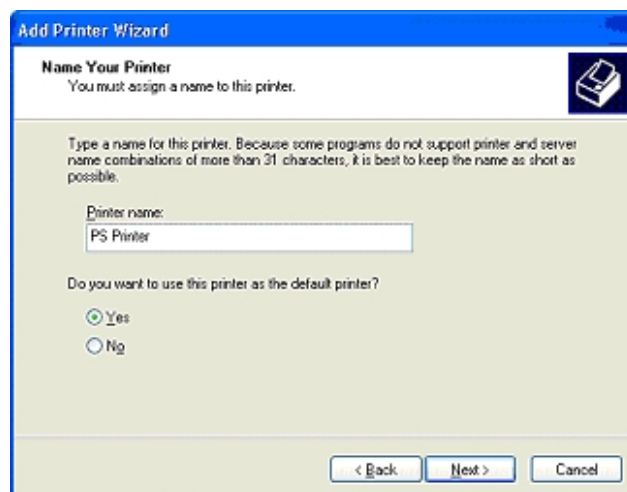
vii) Click on "Next", then the window shown below appears:



viii) Choose "*Apple Color LW 12/660 PS*", in the printers list which appears, then click on "Next", and the window below appears.



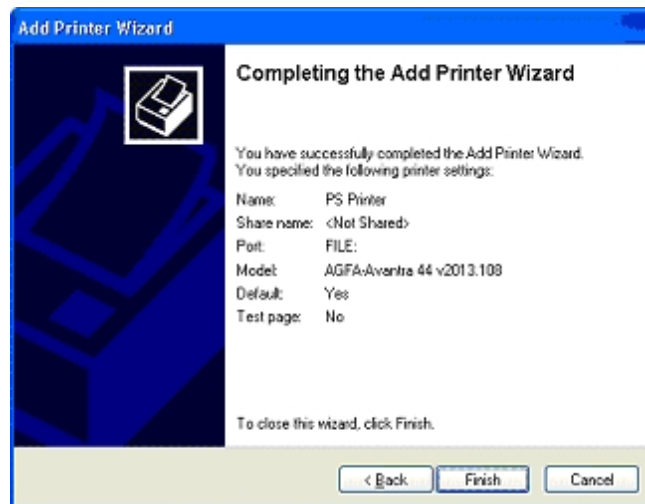
ix) Select "Keep existing driver (recommended)" and click on "Next". The window shown below appears



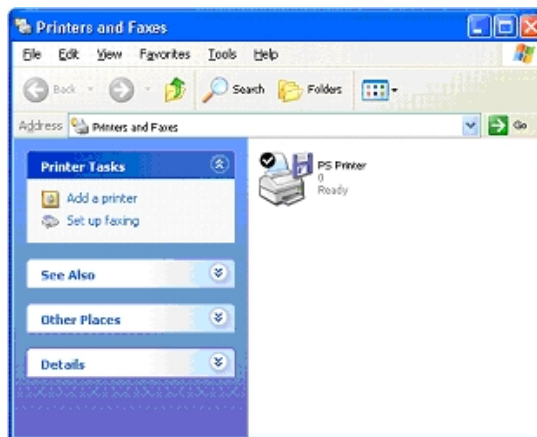
x) Click on "Next"; the following window appears



xi) Click on "Next"; the following window appears



xii) Click on **"Finish"**; the window shown below appears

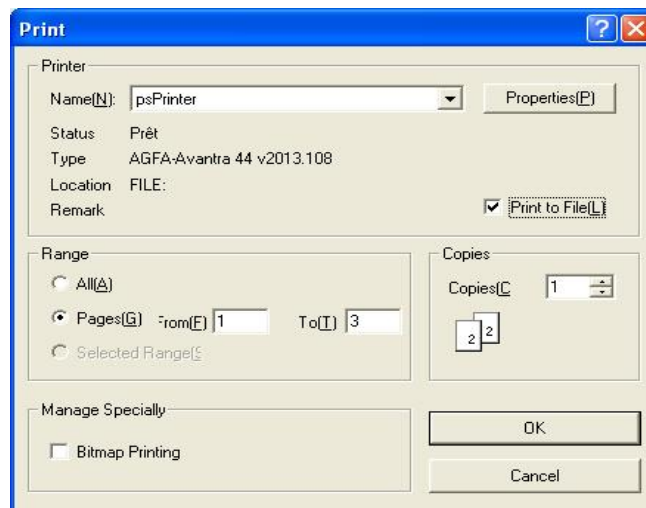


The virtual printer **"PS Printer"** is now installed.

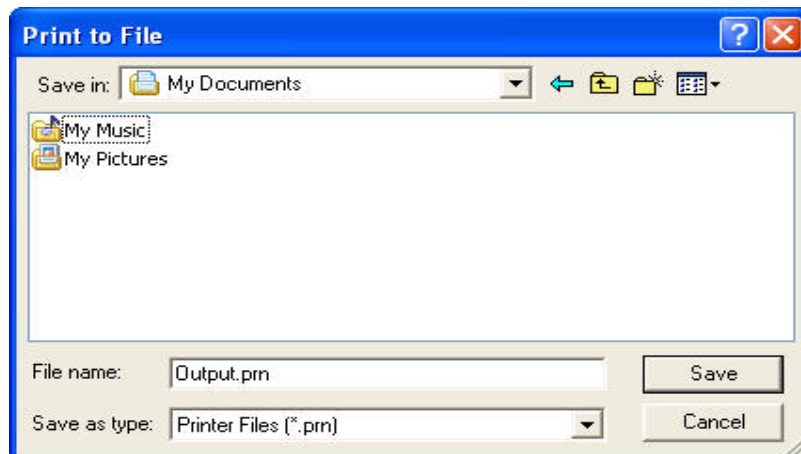
b) Conversion of Class document into **"ps"** or **"eps"** file

Insure that the virtual printer **"PS Printer"** is installed .

Click on **"Print"** in the **"File"** menu. Then, check the **"Print to File"** box in the **"Print"** dialogue box that opens up.



Click on "OK" button. Then select the destination folder ("Shared documents" here)



Note that the default file type is (*.prn) for a print file.

- If you wish to convert a file into a "*.ps" (Post Script) , replace "Output.prn" by the convenient file name with a "*.ps" extension (for instance: File 1.ps) . Click on "Save" button to obtain the conversion.

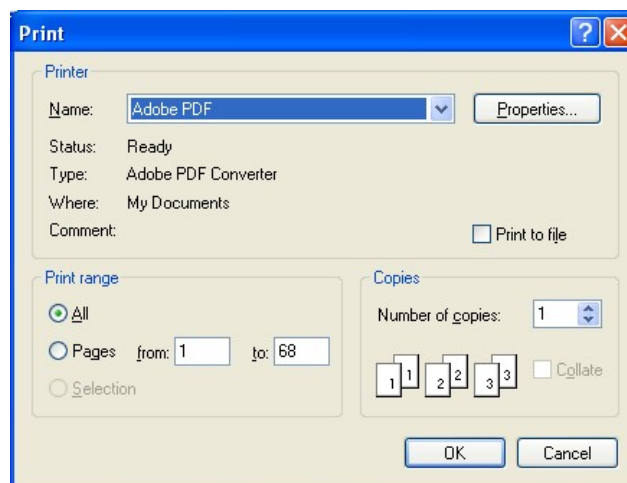
-If you rather wish to convert a file into "*.eps" (Encapsulated Post Script) replace "Output" by the desired file name with a ".eps" extension (for instance: File 1.eps) . click on "Save" button to obtain the conversion.

In either case of conversion you will find the converted file at the location where you save it ("Shared documents" in our example) .

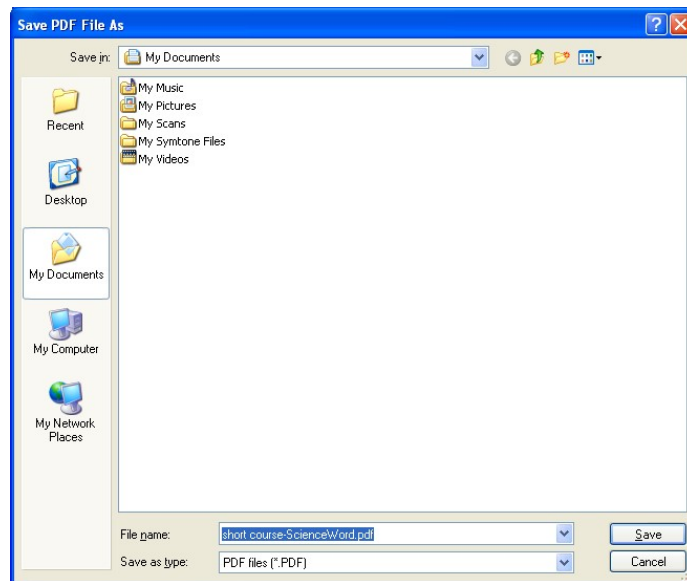
c) Converting a Class document into PDF Format, using PDF printer

The process is as follows:

i) Click on "**Print**" in the "**File**" menu. In the "**Print**" dialogue box, that opens up, select your pdf printer (here "**Adobe PDF**") . The "**Print**" window appears as follows:



ii) Click on OK button. the "Save PDF File" opens up to allow the file saving:



- The file's name come as default. You can change it.

- The folder selected here is "My documents". Other folders can be chosen.

iii) Click on "Save" button. The conversion is carried out to the selected folder ("My Document"

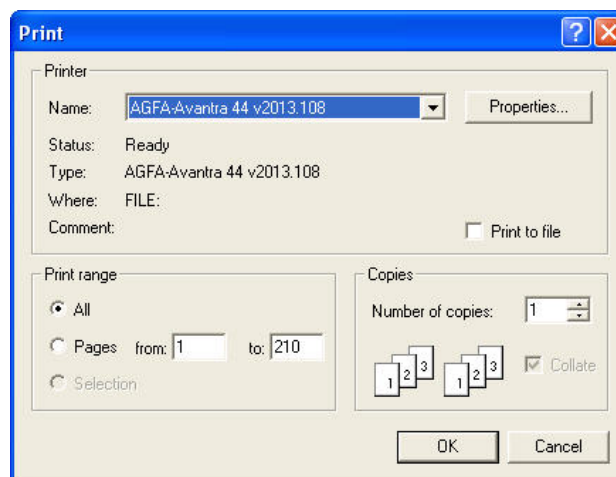
in this case) and the obtained PDF file () opens up directly.

3) Converting into the Microsoft Office Document Imaging Format


The printer Microsoft Office Document Image Writer is a Microsoft Office 2003 tool. Ensure that it is installed on your computer.

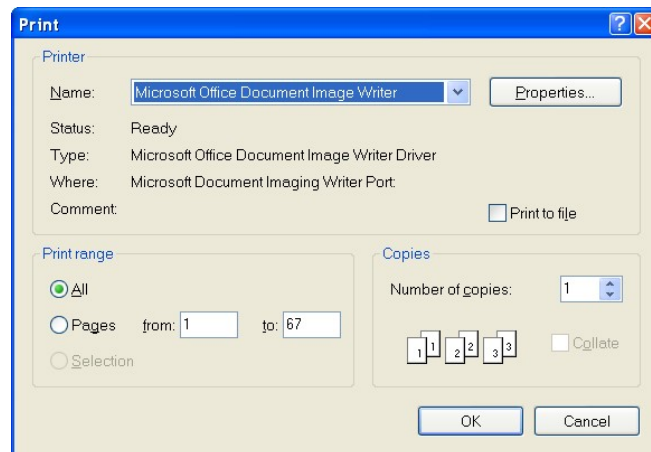
The conversion process is the following:

i) Click on "**Print**" in the "**File**" menu. The "**Print**" dialogue box opens up:

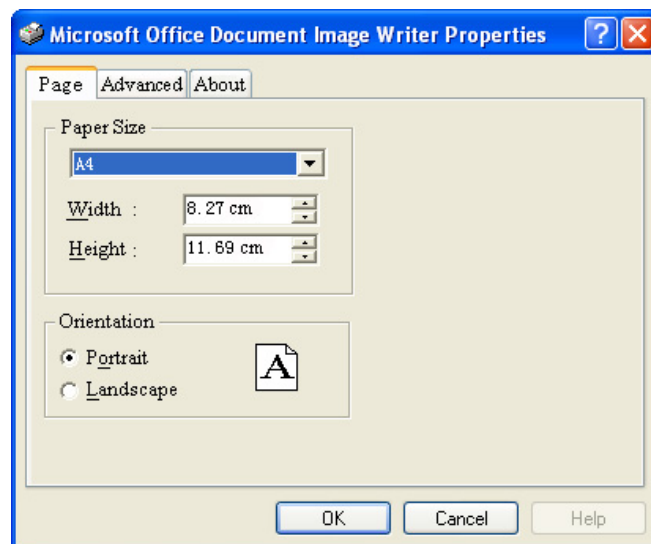


Here the " AGFA- Avantra..." printer appears in the "Name " field. The printer appearing in the "Name" window is actually the printer that is active at that moment on your computer.

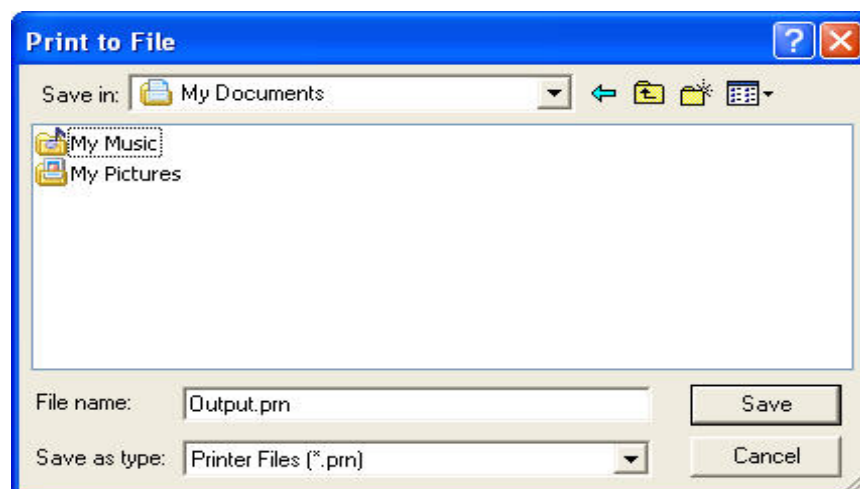
ii) Click on the "  " drop - down arrow of "Name " and select " **Microsoft Office Document Image Writer** ". Tick off the "**Print to file**" box. The "**Print**" dialogue box appears as follows



iii) Click then on the **"Properties"** button. The window **"Microsoft Office Document Imaging Writer Properties"** dialogue box opens up. Select the paper format , then click on **"OK"**.




iv) Click again **"OK"** button to print to file. Then, the **"Print to file"** dialogue box opens up to facilitate the save of the file.



- **Output** is a default name. You can modify it.
- The folder selected here is **"My Documents"**. You may choose another one.

v) Click thereafter on **"Save"**. The conversion happens automatically; you have to wait a few minutes to see the document open up.

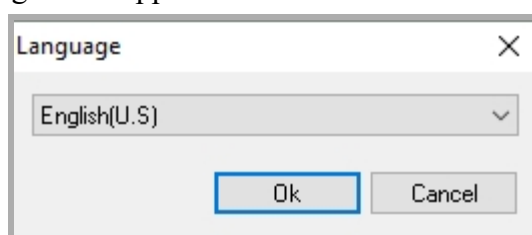
The file of the conversion appears in the form of the icon here  which is that of Microsoft Office Document Imaging, in the location where it is saved ("My Documents" in this case)

V - Configuration of the language of Class

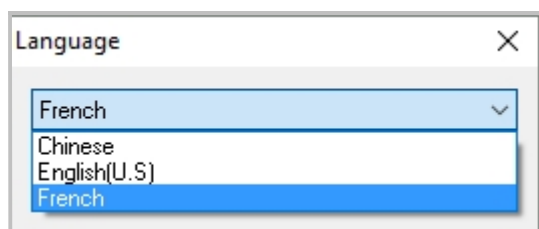
You can configure the menus in English, French and Chinese languages.

For example, when the English version of Class 6.5 is installed on your system, the menu appears by default in English.

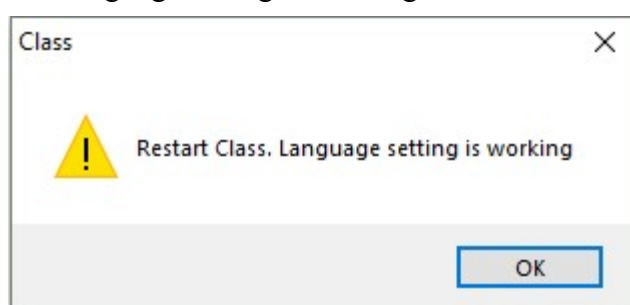
To set the menu in French, click on "View", then in the menu that opens, click on "Language", therefore the following dialogue box appears.



Click on the button of the window to bring out the list of available languages as below:



Click on "French" then click on OK button to validate the choice. The following message will then appear: "Restart Class. Language setting is working".



Click on OK button.

What you need to do therefore is to shut down Class programme and restart it afresh to get the menus in French language.

Note: You can in the same way set back the menus in english or configure the menus in other languages.

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